

201-14569



NCIC HPV

Sent by: Mary-Beth
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07/03/2003 10:39 AM

To: NCIC HPV, moran.matthew@epa.gov

cc:

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Subject: Environmental Defense comments on Diethylenetriamine,
1,7-bis(1,3-dimethylbutylidene) CAS# 10595-60-5



Richard_Denison@environmentaldefense.org on 06/26/2003 06:11:29 PM

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Subject: Environmental Defense comments on Diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene) CAS#
10595-60-5

(Submitted via Internet 6/26/03 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov,
boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and barter@ppg.com)

Environmental Defense appreciates this opportunity to submit comments on
the robust summary/test plan for Diethylenetriamine,
1,7-bis(1,3-dimethylbutylidene) CAS# 10595-60-5.

Air Products and Chemicals, Inc. and PPG Industries, Inc., in response to
EPA's High Production Challenge, have submitted a brief Robust Summary/Test
Plan for diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene). We
appreciate that both the Robust Summary and Test Plan are necessarily brief
because the properties of this chemical make most characterization of its
chemical/physical properties and actual testing difficult or impossible;
the compound does not exist intact in the absence of at least 30% methyl
isobutyl ketone (MIBK), and upon contact with water it rapidly hydrolyzes
(>90%) within five minutes to MIBK and diethylenetriamine (DETA). Thus,
the sponsor addresses many of the SIDS elements requested as part of the
HPV Challenge through theoretical calculations or by bridging from data for
the two degradation products MIBK and DETA. Fortunately, considerable data
are available for both MIBK and DETA and a great deal of this information
is available on the EPA HPV website.

The limited animal toxicity tests that have been done with
diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene) have of necessity used
a test material containing MIBK, which has low acute toxicity. Results of
these studies indicate diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene)
also has low acute toxicity. Due to its rapid hydrolysis to MIBK and
DETA, further mammalian toxicity and ecotoxicity tests performed on
diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene) would yield results
largely if not entirely redundant with those obtained using mixtures of
these two degradation compounds, both of which are relatively non-acutely
toxic and do not persist in the environment. Thus, we agree with Air
Products and Chemicals, Inc. and PPG Industries, Inc. that further
ecotoxicity and mammalian toxicity tests are not warranted for
diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene). However, we feel that
tests for genotoxicity can and should be conducted. This suggestion is
based on the facts that diethylenetriamine, 1,7-bis(1,3-dimethylbutylidene)
is produced and used in large volumes, resulting in significant potential
for human exposure (including by contact through paint products), it does
exist (if briefly) in aqueous environments, and genotoxic effects can occur
very rapidly.

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Thank you for this opportunity to comment.

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